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| CUMMING, WILLIAM D | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,240

Applicant(s)

NAGATA ET AL.

Examiner

WILLIAM D. CUMMING

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the unit transmitting a request packet, the unit managing a transmit side STA, the unit transmitting data packets as stated by claim 16, the unit adding to each of the plurality of data frames, the unit generating and the unit adding a main header as stated by claim 19; the unit checking, the unit recognizing and the unit comparing as stated by claim 24; the unit adding subheaders, the unit generating; the unit adding a main header as stated by

claim 26; the unit checking and the unit cutting out as stated by claim 29; and the unit checking and the unit cutting out as stated by claim 30 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "special" and "standard" are a relative terms which renders the claim indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

All abbreviations, symbols, acronyms, functional designations, sigla, letter combinations, code names, initialisms, nicknames, mnemonic devices, project names, alphabetical contractions and general slang must be positively defined and identified in the claims.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 19-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to provide an enabling disclosure for the unit transmitting a request packet, the unit managing a transmit side STA, the unit transmitting data packets as stated by claim 16, the unit adding to each of the plurality of data frames, the unit generating and the unit adding a main header as stated by claim 19; the unit checking, the unit recognizing and the unit comparing as stated by claim 24; the unit adding subheaders, the unit generating; the unit adding a main header as stated by claim 26; the unit checking and the unit cutting out as stated by claim 29; and the unit checking and the unit cutting out as stated by claim 30 since these unit are not disclose, shown or interconnected to overall apparatus.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-3 and 11-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by **Odenwalder, et al** (WO 02/091767) as stated below and in the European Search Report of August 29, 2006.

12. Claims 1-3 and 16-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by **Odenwalder, et al** (United States Patent).

Odenwalder, et al disclose a wireless packet communication method ("*Systems and techniques for communications wherein a data packet is transmitted over at least one time slot from a transmission site, a value is computed from an initial value and information, the initial value being a function of the number of time slots of the data packet transmission, the value and the information is transmitted from the transmission site, the transmitted value and the information is received at a receiving site, the value from the received information is recalculated, and the number of time slots of the data packet transmission is determined from the calculated and recalculated values.*") for transmitting a data packet in a special format and a data packet in a standard format between STAs (*In an exemplary embodiment of a communications system, data packets can be transmitted over one or more time slots. Accompanying each data packet is an information*

subpacket. The information subpacket includes information for decoding the corresponding data packet and a value calculated from an initial value using the information. The value embedded in the transmission can be used to determine the number of time slots used to transmit the corresponding data packet), the data packet in a special format being generated by connecting or patching a plurality of data frames, the data packet in a standard format being generated from one data frame ("The channel scheduler 214 may also schedule the modulation format of the data subpacket based on the quality of the communications channel between the base station 106 and the subscriber station 108. By way of example, in a relatively distortion free environment with little to no interference, the channel scheduler 214 may schedule a high data rate to transmit each data subpacket over one time slot with a 16-QAM modulation format. Conversely, for subscriber stations with poor channel conditions, the channel scheduler 214 may schedule a low data rate to transmit each data subpacket over eight time slots with a QPSK modulation format. The optimal combination of data rate and modulation format to maximize the throughput of the system can readily determined by those skilled in the art."). The method comprising transmitting a request packet from an STA supporting the special format before transmitting the data packet, the request packet being receivable only by an STA supporting the special format ("The forward link transmission generated by the base station 106 may also include one or more forward packet data control channels associated with the forward packet data channel.

Conventional high-speed packet data systems with multiple time slot arrangements sometimes utilize two forward packet data control channels: a forward primary packet data control channel and a forward secondary packet data control channel. The forward secondary packet data control channel carries information subpackets which can be used by the subscriber station to receive or decode the corresponding data subpackets on the forward packet data channel. In a manner similar to the forward packet data channel, the information subpackets carried by the forward secondary packet data control channel can be transmitted over one or more time slots to optimize communications with various subscriber stations having different channel conditions. In one exemplary embodiment of a CDMA communications system, the information subpackets can be transmitted over the forward secondary packet data control channel in one, two or four 1.25 ms time slots depending on the number of time slots occupied by the corresponding data subpackets. By way of example, the information subpacket can be transmitted over one slot for a one-slot data subpacket, two slots for a two-slot data subpacket, or four slots for a four-slot or eight-slot data subpacket. To distinguish between the four-slot and eight-slot data subpacket format, various methods can be used. One approach is to use different interleavers to re-order the symbol sequence at the base station depending on whether the data subpacket is transmitted over four or eight time slots. The number of time slots occupied by the information subpacket on the forward secondary packet data control channel can be determined from

information carried on the forward primary packet data control channel.").

Managing, by an STA having received said request packet and supporting the special format, a transmit-side STA of said request packet as one supporting the special format, and transmitting therefrom to the transmit-side STA a reply packet which is receivable only by the STA supporting the special format ("*The CRC value can also be used to distinguish between the four-slot and eight-slot data subpacket format. This can be accomplished by setting the initial CRC to one of two different values depending on the format of the data subpacket. The initial CRC value refers to the contents of the shift register before the information subpacket is shifted therethrough. In conventional CDMA communications systems employing CRC error detection, the CRC value is computed with a procedure that sets the initial CRC value to all "ones." This procedure is a convenient way to identify a data subpacket having a one, two or four-slot format, although any initial CRC value can be used. In the case where the data subpacket has an eight slot format, the CRC value can be calculated with a procedure sets the initial CRC value to all "zeros," or some other value that distinguishes the eight slot transmission from the four slot transmission. This approach may be more attractive than using two different block interleavers to distinguish between the four slot and eight slot data subpacket format because of reduced computational complexity both at the base station and subscriber station.*"). Managing the transmit-side STA of said reply packet as one supporting the special format, by the STA having received said request packet

and supporting the special format (*"In a further aspect of the present invention, a receiving device includes means for receiving a data packet transmitted over at least one time slot, and a value and information, the value being computed from an initial value and the information, the initial value being a function of the number of time slots of the data packet transmission, means for recalculating the value from the received information, and determination means for determining the number of time slots of the data packet transmission from the calculated and recalculated values."*) and transmitting, according to management information in an own station, the data packet in the special format when a receive-side STA supports the special format, and transmitting the data packet in the standard format when the receive-side STA does not support the special format (*"In one aspect of the present invention, method of communications includes transmitting a data packet over at least one time slot from a transmission site, computing a value from an initial value and information, the initial value being a function of the number of time slots of the data packet transmission, transmitting the value and the information from the transmission site, receiving the transmitted value and the information at a receiving site, recalculating the value from the received information, and determining the number of time slots of the data packet transmission from the calculated and recalculated values."*)

Conclusion

13. If applicants wish to request for an interview, an *"Applicant Initiated Interview Request"* form (PTOL-413A) should be submitted to the examiner prior to the interview in order to permit the examiner to prepare in advance for the interview and to focus on the issues to be discussed. This form should identify the participants of the interview, the proposed date of the interview, whether the interview will be personal, telephonic, or video conference, and should include a brief description of the issues to be discussed. A copy of the completed *"Applicant Initiated Interview Request"* form should be attached to the Interview Summary form, PTOL-413 at the completion of the interview and a copy should be given to applicant or applicant's representative.

14. DUPLICATE COPY OF FORMS FOR FEE PROCESSING NO LONGER REQUIRED

Numerous United States Patent and Trademark Office (Office) forms utilized for making fee payments in regard to an application, a reexamination proceeding or a patent include language requesting a duplicate copy of the form for fee processing. In the past, the duplicate copy of the form was needed as the paper application file would be in one area of the Office while the processing of the fee would be done in another area of the Office. It is current Office procedure to scan forms containing an authorization to charge or credit a fee amount to a deposit account into the Image File Wrapper (IFW) of an application, a reexamination proceeding or a patent. Once the form is scanned into IFW, it is available and viewable throughout the Office for, *inter alia*, fee processing. As a result, there is no longer a need for the duplicate copy. Office forms (e.g., PTOISBIO5; PTOL-85B; PTOISBI6; PTOISBI7i; PTOISBI7p; PTOISBI8; PTOISB119; PTOISBI22; PTOISBI24A; PTOISBI29; PTOISBI30; PTOISBI3 1; PTOISBI32; PTOISBI37; PTOISBI43; PTOISBI45; PTOISBISO; PTOISBI56; PTOISBR7; PTOISBI58; PTOISBI65; PTOISBI66; PTOISBI94; PTOISBI13PCT; and PTO-1390) will be revised to remove the request for a duplicate copy of the form for fee processing. In the event that a duplicate copy of a form is needed for fee processing (e.g., the form has not been scanned into IFW or the form is submitted in a security application), the Office will make the necessary

copy of the form for fee processing. Inquiries concerning this notice may be directed to James Engel, Senior Legal Advisor in the Office of Patent Legal Administration, at (571) 272-7701 or at PatentPractice@uspto.gov.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **WILLIAM D. CUMMING** whose telephone number is **571-272-7861**. The examiner can normally be reached on Tuesday- Friday, 11:00am-8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM D CUMMING/
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